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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/646,714

08/25/2003

Thomas J. Kelly

08350.3304-05

9838

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05/14/2008

CATERPILLAR/FINNEGAN, HENDERSON, L.L.P.

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EXAMINER

GYORFI, THOMAS A

ART UNIT

PAPER NUMBER

2135

MAIL DATE

DELIVERY MODE

05/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/646,714	Applicant(s) KELLY ET AL.	
	Examiner Thomas Gyorfi	Art Unit 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-23 remain for examination. The correspondence filed 2/11/08 amended claims 1, 12, and 23.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/11/08 has been entered.

Claim Objections

3. Claim 6 is objected to because of the following informalities: the status of the claim is listed as "Currently Amended", although no discernible alterations appear to have been made to the claim. For purposes of examination, the claim status has been treated as "Previously presented".

Response to Arguments

4. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.
5. In regards to the issue of the Information Disclosure Statements, Examiner refers Applicant to the comments and legal citations from the Non-Final Office Action of 2/9/07, pages 2-3.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-7, 10-18, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,052,788 (hereinafter, "Wesinger"), and further in view of RFC 3142: "An IPv6-to-IPv4 Transport Relay Translator" (hereinafter, "Hagino") and further in view of U.S. Patent Application Publication 2004/0268113 (hereinafter, "Rothman").

Regarding claim 1:

Wesinger discloses a system for managing communications comprising: a first off-board system connected to a first off-board data link, wherein the off-board module is remotely located from the first machine (Figure 1; see also col. 8, lines 15-20); a gateway embedded in the first machine including: a communication application that uses a translation table stored in the gateway for converting information from a first protocol format to a second protocol format (col. 7, lines 45-53; col. 8, lines 35-55), and a firewall application that is configured to perform, when executed by a processor, a firewall process that controls access to proprietary information associated with the first machine (col. 9, lines 20-67), wherein the firewall process determines whether a message received from the first off-board system is authorized based on a profile associated with the first off-board system, whether a message received from the first off-board module includes a parameter identifier corresponding to one of a number of parameter identifiers included in the translation table, and denies access to the proprietary information based on at least one of (i) a determination that the parameter identifier does not correspond to one of the number of parameter identifiers in the

translation table and (ii) the profile associated with the off-board system (Ibid, and col. 16, lines 13-37).

Wesinger does not explicitly recite conversion from a first *communication* protocol format to a second *communication* protocol format. However, by the time the instant invention was made there existed a need for firewalls, routers, and other networked devices to be able to support both IPv4 (the standard communication protocol of the Internet) and IPv6 (a new communications protocol ultimately intended to replace IPv4, see the pertinent prior art below). Furthermore, the ability for a communication application that uses a translation table stored in a gateway for converting from one communication protocol format [IPv6] to a second communication protocol format [IPv4] was known in the art, as disclosed by Hagino (pages 3-4, "3. IPv6-to-IPv4 transport relay translator"; translation tables at page 4, "Address mapping"). The claim would have been obvious because the design incentives inherent to IPv6 (as compared to IPv4) provided a reason to make an adaptation, and the invention resulted from application of the prior knowledge in a predictable manner.

Neither Wesinger nor Hagino disclose wherein the messages transferred among the machines over the network may include operational parameters of a first machine. However, the ability to send messages between a first machine and a second machine in order to monitor a first machine's operational parameters, such as a component temperature (see the instant specification, page 23, paragraph 69; and page 29, paragraph 83), has long since been known in the art, as discussed by Rothman (paragraph 0004; Figure 1). The claim is thus obvious because the inclusion of operational parameters of a first machine, such as the processor [component] temperature, in one or more messages across a network was clearly recognized as part of the capabilities of one of ordinary skill in the art.

Regarding claims 12 and 23:

Wesinger discloses a method (and computer program for implementing same) for managing communications comprising: receiving a request generated by a first off-board system and transmitted on a first off-board data link (col. 6, lines 60-67); and invoking a firewall application that performs a firewall process including the steps of: identifying a destination device associated with the request (col. 8, lines 15-35), determining whether the request is authorized based on a profile associated with the first off-board system (col. 16, lines 13-37); determining whether the request includes a parameter identifier that matches a parameter identifier included in a memory location maintained by the gateway (col. 15, lines 1-13), and denying or granting access to proprietary information based on the two determining steps (*Ibid*).

Wesinger does not explicitly recite conversion from a first *communication* protocol format to a second *communication* protocol format. However, by the time the instant invention was made there existed a need for firewalls, routers, and other networked devices to be able to support both IPv4 (the standard communication protocol of the Internet) and IPv6 (a new communications protocol ultimately intended to replace IPv4, see the pertinent prior art below). Furthermore, the ability for a communication application that uses a translation table stored in a gateway for converting from one communication protocol format [IPv6] to a second communication protocol format [IPv4] was known in the art, as disclosed by Hagino (pages 3-4, “3. IPv6-to-IPv4 transport relay translator”; translation tables at page 4, “Address mapping”). The claim would have been obvious because the design incentives inherent to IPv6 (as compared to IPv4) provided a reason to make an adaptation, and the invention resulted from application of the prior knowledge in a predictable manner.

Neither Wesinger nor Hagino disclose wherein the messages transferred among the machines over the network may include operational parameters of a first machine. However, the ability to send messages between a first machine and a second machine in order to monitor a first machine's operational parameters, such as a component temperature (see the instant specification, page 23, paragraph 69; and page 29, paragraph 83), has long since been known in the art, as discussed by Rothman (paragraph 0004; Figure 1). The claim is thus obvious because the inclusion of operational parameters of a first machine, such as the processor [component] temperature, in one or more messages across a network was clearly recognized as part of the capabilities of one of ordinary skill in the art.

Regarding claim 2:

Wesinger further discloses wherein the firewall process denies or grants access to the proprietary information based on a profile associated with a user operating the first off-board system (col. 16, lines 13-25).

Regarding claims 3 and 13:

Wesinger further discloses wherein the profile is associated with a user of the first off-board system and defines a type of access to a selected portion of the proprietary information (Ibid).

Regarding claims 4 and 14:

Wesinger further discloses wherein the proprietary information includes a parameter identifier data value (col. 15, lines 1-13).

Art Unit: 2135

Regarding claims 5 and 15:

Wesinger further discloses wherein the firewall process allows the first off-board system to access the proprietary information to access the proprietary information when the parameter identifier in the message matches at least one parameter identifier included in the translation table (col. 15, lines 1-13).

Regarding claims 6 and 16:

Wesinger further discloses wherein the gateway executes the communication application to convert the request to a different communication protocol format when the firewall process allows the off-board system to access the proprietary information (col. 11, lines 15-25).

Regarding claims 7 and 18:

Wesinger further discloses wherein the firewall process denies access to an on-board module based on parameter information included in a second message (col. 10, lines 51-56).

Regarding claims 10 and 21:

Wesinger further discloses wherein the firewall application performs a second firewall process that controls access to the proprietary information based on a timing profile associated with the type of request (col. 15, lines 10-15).

Regarding claims 11 and 22:

Wesinger further discloses wherein the request is a batch request including multiple sub-requests associated with the proprietary information based on a determination that parameter identifiers associated with a respective portion of the sub-requests do not match any of the parameter identifiers included in the translation table (col. 14, lines 23-30).

Regarding claim 17:

Wesinger further discloses wherein the memory location is included in a translation table used by the communication application to convert parameter data values to different formats (col. 7, lines 45-53).

8. Claims 8, 9, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wesinger, Hagino, and Rothman as applied to claims 1 and 16 above, and further in view of Bade et al. (U.S. Patent 6,778,837).

Regarding claims 8 and 19:

Wesinger does not explicitly disclose wherein the first machine moves between, or within, an environment and the firewall controls access to proprietary information located in a remote location based on the position of the first machine. However, Bade discloses this limitation (col. 2, lines 38-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to permit or deny access to [mobile] devices based on location as disclosed by Bade. The motivation for doing so would be to prevent unauthorized users from accessing proprietary information in the event the device was stolen or misplaced (Ibid, and col. 2, lines 1-10).

Regarding claims 9 and 20:

Wesinger and Bade further disclose wherein the gateway receives the message from a second gateway included in a second machine that has moved into the communication range of the first machine (Wesinger: Figure 1, and col. 7, lines 12-35; Bade: col. 3, lines 35-45).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Gyorfi whose telephone number is (571)272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAG
5/9/08
/KIMYEN VU/
Supervisory Patent Examiner, Art Unit 2135